The State of New Hampshire
Department of Environmental Services

NHDES

Michael P. Nolin
Commissioner

April 11, 2006

The Honorable Bob Odell, Chairman
New Hampshire Senate
Energy and Economic Development Committee
Legislative Office Building, Room 304
Concord, New Hampshire 03301

Re: HB 1673 - An Act Relative to Emission Reduction Standards as Required by the Clean Power Act

Dear Chairman Odell and Members of the Committee:

Thank you for the opportunity to provide testimony in support of HB 1673, which seeks to reduce mercury emissions from affected fossil fuel burning power plants within New Hampshire. HB 1673 is the result of several months of discussions between Public Service Company of New Hampshire (PSNH), DES, the Office of Energy and Planning, the New Hampshire Governor's Office, interested members of the General Court, and environmental advocacy organizations. DES's goal in these discussions was to seek aggressive levels of mercury reductions while minimizing cost impacts on electrical ratepayers. This bill achieves these goals, *and* provides additional environmental co-benefits of reduced local sulfur and particulate emissions.

While DES can appreciate the concerns some have expressed for greater reductions in a shorter timeframe, we remain steadfast that this bill represents a thoughtful balance of environmental and economic concerns. It delivers significant, yet practicably achievable reductions in a reasonable timeframe, and includes meaningful incentives for additional reductions beyond the bill's specified minimum and/or early action to reduce emissions. Eliminating flexibility in the required reductions and schedule will do little to provide actual environmental benefit, and yet may be detrimental to project financing We believe this package of an aggressive, yet realistic reduction target /schedule and economic incentives achieves our goals for meaningful environmental benefit, maintaining electricity supply stability, and reducing financial risk and subsequent ratepayer impact.

If passed, this bill will be technically challenging to implement because the existing configuration of the boilers, stacks, and air pollution control equipment at Merrimack Station does not easily lend itself to installation of additional equipment. Due to physical constraints, installation of additional equipment to optimally reduce mercury emissions would require major renovations. PSNH has worked hard to find creative solutions to these issues so that operations can be maintained while constructing and testing the required control equipment. We feel that 2013 represents a practicably achievable goal given these constraints. The specified technology has the potential to achieve reductions well beyond the minimum requirement of 80% from all affected sources (including PSNH's Schiller Station units). However, the bill contains significant incentives and safeguards to ensure higher reductions if achievable.

P.O. Box 95, 29 Hazen Drive, Concord, New Hampshire 03302-0095
Telephone: (603) 271-1370 • Fax: (603) 271-1381 • TDD Access: Relay NH 1-800-735-2964
DES Web site: **www.des.nh.gov**

This bill ultimately results from the requirements of HB 284 (passed in the 2002 session), commonly referred to as the New Hampshire Clean Power Act. In accordance with the requirements of RSA 125-O (as established by HB 284) the *"Multiple Pollutant Reduction Program"*, the New Hampshire Department of Environmental Services (DES) made a recommendation to the Legislature on March 31, 2004 to place a cap on mercury emissions from these facilities. In response, last year, the NH Senate passed SB 128 which contained similar mercury reductions as those contained in HB 1673.

During committee hearings in both the Senate and in the House, the public outcry and the expert testimony for controlling mercury emissions from our state's coal-fired power plants sent a clear message that significant mercury emission reductions must be made. There were questions, however, as to how best to accomplish this task. Over the summer, PSNH in consultation with DES, performed tests with carbon injection control technology and researched the facility's ability to install wet scrubber technology. The results of this work led to the conclusion that while carbon injection can produce quick mercury emission reductions, the installation of the wet scrubber technology produces superior environmental benefits at a lower overall cost

In order to best protect our citizens and environment from excess mercury emissions and to address the biological "hot spots" documented to exist within our state, we feel a successful mercury bill must meet three goals. First, it must reduce emissions as quickly as possible. Second, the chosen technology used must achieve the greatest mercury reduction technically feasible. And third, the technology must be implemented in a way that maintains our electrical reliability and affordability, without shifting production to upwind states.

HB 1673 meets these goals with the creative use of incentives and the aggressive application of technology. Early reduction will be achieved through additional testing of carbon injection technology with subsequent ongoing implementation on the most successful application of this technology. Critical to the success of this bill is the requirement that wet scrubber technology be installed on Merrimack Units 1 and 2 by July 1, 2013. The use of this technology not only reduces mercury very efficiently (potentially greater than 90% in most applications), but it is highly effective in removing sulfur dioxide (SO_2) and small particles. This co-benefit of reducing three pollutants simultaneously with the same equipment reduces implementation costs by allowing PSNH to significantly reduce purchasing SO_2 emission allowances. Based on data shared by PSNH, the total capital cost for this full redesign will not exceed $250 million dollars (2013$) or $197 million (2005$), a cost that will be fully mitigated by the savings in SO_2 emission allowances. Finally, while the scrubber technology has been demonstrated to achieve higher levels of mercury reductions than initially called for in this bill, the bill contains a requirement that tightens the required reduction rate to the level that is actually achieved and is sustainable by the scrubber technology. Application of the requirements in this way reduces project risks while still achieving full environmental benefits.

Further, HB 1673 is clearly more strict than the federal Clean Air Mercury Rule, that may have to be implemented here in New Hampshire with its own associated costs beginning in 2010, if no other alternative such as an enacted HB 1673 is proposed to EPA prior to November 2006. HB 1673 is consistent with state mercury programs in Connecticut, Massachusetts, New Jersey, and Indiana, as well as regional and national recommendations made by the State and Territorial Air Pollution Program Administrators and Association of Local Air Pollution Control Officials (STAPPA/ALAPCO), the Northeast States for Coordinated Air Use Management (NESCAUM), and the Ozone Transport Commission (OTC) for mercury Maximum

Achievable Control Technology (MACT). Consistent with the amended SB 128, HB 1673 does not allow trading of mercury emission credits.

DES is committed to working with the Legislature to develop a prudent course of action to further reduce mercury emissions. Should your committee members have questions or need additional information regarding these recommendations, please feel free to contact Robert R. Scott, Air Resources Division Director, at 271-1088.

Sincerely,

for Michael P. Nolin
Commissioner

cc: HB 1673 Sponsors
Senate Energy and Economic Development Committee